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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/533,392

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Tetsuroh Nakamura

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EXAMINER

AL HASHIMI, SARAH

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/533,392	Applicant(s) NAKAMURA ET AL.	
	Examiner SARAH AL HASHIMI	Art Unit 2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 83-98 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 83-98 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/31/2007 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 83-85,91-93 are rejected under 35 U.S.C. 102(b) as being anticipated by Satoh (US 5,684,523).

Satoh teaches:

Claim 83: light emitting elements arranged on a substrate in a main scanning direction; converting structures, disposed on said substrate so as to respectively correspond to said light emitting elements, for converting an advancing direction of light emitted from said light emitting elements to be parallel to said substrate; and light transmitting structure for transmitting light, the advancing direction of which has been converted by

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said converting structures to be parallel to said substrate, to a photosensitive drum so as to form an image on the photosensitive drum (fig 22 where 601 is the substrate).

Claim 84: said converting structures are disposed on said substrate by being on said light emitting elements, respectively, such that said converting structures are for converting the advancing direction of the light emitted from said light emitting elements by having the light enter said converting structures without the light having passed through said substrate (fig 22).

Claim 85: said converting structures are disposed on said substrate by being on a surface of said substrate other than a surface of said substrate on which said light emitting elements are arranged, such that said converting structures are for converting the advancing direction of the light emitted from said light emitting elements by having the light enter said converting structures after the light has passed through said substrate (fig 22).

Claim 91: light emitting elements arranged on a substrate in a main scanning direction; converting structure, disposed on said substrate and common to said light emitting elements, for converting an advancing direction of light emitted from said light emitting elements to be parallel to said substrate; and light transmitting structure for transmitting light, the advancing direction of which has been converted by said converting structure to be parallel to said substrate, to a photosensitive drum so as to form an image on the photosensitive drum (fig 22).

Claim 92: said converting structure is disposed on said substrate by being on said light emitting elements such that said converting structure corresponds to all said light

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emitting elements and is for converting the advancing direction of the light emitted from said light emitting elements by having the light enter said converting structure without the light having passed through said substrate (fig 22).

Claim 93: said converting structure is disposed on said substrate by being on a surface of said substrate other than a surface of said substrate on which said light emitting elements are arranged, such that said converting structure corresponds to all said light receiving elements and is for converting the advancing direction of the light emitted from said light emitting elements by having the light enter said converting structure after the light has passed through said substrate (fig 22).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 86,94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Satoh (US 5,684,523) in view of Ishihara (US 7,154,640).

Satoh does not teach but Ishihara teaches:

Claim 86,94: the image writing apparatus includes photosensitive drums arranged in series (fig 11 #21-24).

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Satoh to incorporate the image writing apparatus

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includes photosensitive drums arranged in series as taught by Ishihara because a series of drums provides the ability for multiple imaging before the necessity of replacement drums.

6. Claims 87,95 are rejected under 35 U.S.C. 103(a) as being unpatentable over Satoh (US 5,684,523) in view of Yip (US 5,817,447).

Satoh does not teach but Yip teaches:

Claim 87,95: said light emitting elements comprise an organic electro luminescence material (col 3 lines 1-2 "organic LED arrays").

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Satoh to incorporate said light emitting element comprises an organic electro luminescence material as taught by Yip because it is inexpensive and a good source for blue light commonly used in imaging.

7. Claim 88 is rejected under 35 U.S.C. 103(a) as being unpatentable over Satoh (US 5,684,523) in view of Egan (US 5,969,747).

Satoh teaches:

Claim 88: converting structures on a substrate; respectively, and arranged in a main scanning direction of said substrate, for emitting light to said converting structures such that an advancing direction of the light is converted by said converting structures so as to be parallel to said substrate; and light transmitting structure for transmitting light, the advancing direction of which has been converted by said converting structures to be parallel to said substrate, to a photosensitive drum so as to form an image on the photosensitive drum (fig 22).

Claim 96: converting structure on a substrate; and arranged in a main scanning direction of said substrate, for emitting light to said converting structure such that an advancing direction of the light is converted by said converting structure so as to be parallel to said substrate; and light transmitting structure for transmitting light, the advancing direction of which has been converted by said converting structure to be parallel to said substrate, to a photosensitive drum so as to form an image on the photosensitive drum (fig 22).

Satoh does not teach but Egan teaches:

Claim 88: light emitting elements on said converting structures (fig 2a).

Claim 96: light emitting elements, on said converting structure (fig 2a).

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Satoh to incorporate light emitting elements on said converting structures

8. Claims 89, 97 rejected under 35 U.S.C. 103(a) as being unpatentable over Satoh (US 5,684,523) in view of Egan (US 5,969,747) as applied to claims 88&96 above, and further in view of Ishihara (US 7,154,640).

Satoh in view of Egan does not teach but Ishihara teaches:

Claim 89, 97: the image writing apparatus includes photosensitive drums arranged in series (fig 11 #21-24).

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Satoh in view of Egan to further incorporate the image writing apparatus includes photosensitive drums arranged in series as taught by

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Ishihara because a series of drums provides the ability for multiple imaging before the necessity of replacement drums.

9. Claims 90, 98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Satoh (US 5,684,523) in view of Egan (US 5,969,747) as applied to claims 88&96 above, and further in view of Yip (US 5,817,447).

Satoh in view of Egan does not teach but Yip teaches:

Claim 90, 98: said light emitting elements comprise an organic electro luminescence material (col 3 lines 1-2 "organic LED arrays").

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Satoh in view of Egan to further incorporate said light emitting element comprises an organic electro luminescence material as taught by Yip because it is inexpensive and a good source for blue light commonly used in imaging.

Response to Arguments

10. Applicant's arguments with respect to claims 44-82 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SARAH AL HASHIMI whose telephone number is (571)272-7159. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571 272 2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SA/

/An H. Do/
Primary Examiner, Art Unit 2853